

## **INTEGRATED LOW POWER DIGITAL GYRO CONTROL ELECTRONICS**

### **ABSTRACT OF THE DISCLOSURE**

Embodiments of the invention generally encompass a digital, application specific integrated circuit (ASIC) has been designed to perform excitation of a selected mode within a vibratory rate gyroscope, damping, or "force-rebalance," of other modes within the sensor, and signal demodulation of the in-phase and quadrature components of the signal containing the angular rate information. The ASIC filters dedicated to each channel may be individually programmed to accommodate different rate sensor designs/technology or variations within the same class of sensors. The ASIC architecture employs a low-power design, making the ASIC, particularly suitable for use in power-sensitive applications.

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